



# State of Wisconsin Recruitment & Hiring Analysis Report

2014 Q1 – 2017 Q3

*Recruitment & Hiring Analysis Covering Primarily the Permanent Classified Workforce in the Executive Branch of Wisconsin State Government from 2014 Q1 through 2017 Q3.*

## Division of Personnel Management

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# STATE OF WISCONSIN DEPARTMENT OF ADMINISTRATION

Scott Walker, Governor  
Scott A. Neitzel, Secretary  
Gregory L. Gracz, Division Administrator

Dear Reader:

It is my pleasure to present the Recruitment & Hiring Analysis Report for 2017.

This report presents recruitment and selection trends, including volume of job announcements, applicant interest, assessment type utilization, and the time to fill positions, before and after the implementation of 2015 Wisconsin Act 150 (herein Act 150). This report is the first edition in a series of annual reports.

The purpose of this report is to provide an overview of recruitment and selection data both pre- and post-Act 150, with a focus on the extent to which established goals of Act 150 have been met. The data are based on a calendar year and presented by quarter in which the first quarter begins in January. The effective calendar year and quarter date is based upon (reflective of) the job announcement publish date. Data were extracted from Wisconsin's online HR recruiting tool, Wisc.Jobs.

This report documents the permanent classified workforce, and therefore excludes unclassified, temporary, judicial, legislative, and employees in the University of Wisconsin System. There are two primary reasons for this limited scope. The first reason is that permanent classified employees are the stable "career" workforce in the executive branch for carrying out the programs established by the governor and legislature. The second reason is that the Department of Administration does not administer personnel systems outside of the Executive Branch.

Trends revealed in this report include:

- the average number of applications received per quarter increased following Act 150 as compared to pre-Act 150;
- training & experience assessments were the most widely used pre-certification assessment type prior to Act 150, but resume screens became the most widely used assessment type following Act 150;
- the average number of days to fill positions per quarter was significantly lower after Act 150 as compared to pre-Act 150;
- the average number of days to fill positions per quarter was significantly lower for job announcements with resume screens (post-Act 150) compared to job announcements with training & experience assessments (pre-Act 150); and
- the average number of days from job announcement publication to first offer post-Act 150 was under 60 days (48.26 days).

I hope you will find this report a useful resource as we work together to ensure state government provides excellent, efficient, and accountable service to the citizens of Wisconsin.

Sincerely,

Gregory L. Gracz,  
Administrator

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# Executive Summary

## Volume of Job Announcements

- Overall, there has been an upward trend in the number of job announcements published from Quarter 1, 2014 to Quarter 3, 2017\*.

## Applicant Interest

- The changes made to the civil service hiring process in Act 150 were intended to make it easier for applicants to apply for positions with the intention of increasing the number of people applying for state jobs.
- Overall, there has been an upward trend in the number of applications received from Quarter 1, 2014 to Quarter 3, 2017\*.
- The average number of applications received per quarter was significantly higher post-Act 150 (29,927) as compared to pre-Act 150 (23,514), an increase of more than 27%, despite a downward trend in unemployment within the State of Wisconsin over that timespan\*.

## Assessment Type Utilization

- The resume screen has been established as the preferred method of pre-certification assessment following implementation of Act 150.
- Training & experience assessments were the most widely used pre-certification assessment type prior to Act 150 (accounting for 60% of all assessments), but resume screens became the most widely used assessment type following implementation of Act 150 (accounting for 64% of all assessments)\*.
- The average number of applications received per quarter for job announcements published post-Act 150 with resume screen assessments (46.52) was higher than the average number of applications received per quarter for job announcements published pre-Act 150 with training & experience assessments (43.50), an increase of nearly 7%\*.

## Time to Fill Positions

- The time to fill positions (number of days from job announcement publication to certification, from certification to hire, and thus from job announcement publication to hire) was reduced with the intent of making the hiring process more efficient, following implementation of Act 150.
- Overall, there has been a downward trend in the average time to fill positions from Quarter 1, 2014 to Quarter 3, 2017\*.
- The average number of days to fill positions per quarter was significantly lower post-Act 150 (67.65 days) as compared to pre-Act 150 (86.55 days), a decrease of nearly 22%\*.
- The average number of days to fill positions per quarter was significantly lower for job announcements with resume screens, post-Act 150 (66.93 days) compared to job announcements with training & experience assessments, pre-Act 150 (86.72 days), a difference of nearly 23%\*.
- The average number of days from job announcement publication to first offer post-Act 150 was under 60 days (48.26 days)\*\*.

\*For job announcements published between January 1, 2014 and September 22, 2017.

\*\*For job announcements published between July 1, 2016 and September 22, 2017, with date of first offer available.

## Recruitment and Selection Overview

The following is a brief overview of the revisions to the recruitment and selection process enacted by 2015 Wisconsin Act 150 (Act 150), and a summary of how the recruitment and selection process is currently being implemented across the State of Wisconsin.

### Implementation of Act 150

Per statute, Wisconsin State Service must have merit-based and competitive processes that are timely and responsive to recruit, assess, and hire job applicants.

“It is the policy of this state to recruit, select, and promote employees base on their relative skills, abilities, competencies, and knowledge, including using open processes to consider qualified applicants for initial employment.” s. 230.01(2)(bm), Wis. Stats.

Act 150 revised certain aspects of the state civil service laws for classified employees, including revisions to the hiring process, affecting application format and timelines in the application process. The Department of Administration, Division of Personnel Management, Bureau of Merit Recruitment and Selection (BMRS) is responsible for the monitoring and oversight of the merit recruitment and selection process under Chapter 230, Wis. Stats.

Under the former law, subject to certain exceptions, appointments and promotions were to be made according to merit and fitness, which must be ascertained so far as practicable by competitive examinations. Following Act 150, the merit and fitness requirements remain, but competitive examinations are replaced with what are referred to as “competitive procedures” and applications for employment in classified service now require the submission of a resume.

“The selection process for a position in the civil service shall be free and open to all applicants who have fulfilled the preliminary requirements stated in the position announcement. To assure that all applicants have a fair opportunity to compete, competitive procedures shall be scheduled in a manner that most nearly meet the convenience of applicants and needs of the service, as determined by the director.” s. 230.16(2), Wis. Stats.

Requirements for the use of appropriate job-related validation standards and scientific techniques and procedures in administering the selection process also remain.

“In the interest of sound personnel management, consideration of applicants, and service to agencies, the director may set a standard for proceeding to subsequent steps in the selection process, provided that all applicants are fairly treated and due notice has been given. The director shall utilize appropriate scientific techniques and procedures in administering the selection process, in rating the results of any evaluations used in the selection process, and in determining the relative ratings of the competitors.” s. 230.16(5), Wis. Stats

Pursuant to the changes introduced by Act 150, the timeline for filling a classified vacancy was effectively reduced from 105 days to 60 days. By statutory provision, the number of days permitted from the date an appointing authority submits a request for certification to BMRS until the date the certification list is generated has been reduced from 45 days to 30 days.

“The director shall use techniques and procedures designed to certify eligible applicants to any vacant permanent position within 30 days after the filing of an appropriate request by an appointing authority.” s. 230.05(7), Wis. Stats

The number of days permitted from the date the certification list is generated to the date an appointment is made by the appointing authority has been reduced from 60 days to 30 days

“Unless otherwise provided in this subchapter or the rules of the director, appointments shall be made by appointing authorities to all positions in the classified service from among those certified to them in accordance with this section. Appointments shall be made within 30 days after the date of certification unless an exception

is made by the director. If an appointing authority does not make an appointment within 30 days after certification, he or she shall immediately report in writing to the director the reasons therefor. If the director determines that the failure to make an appointment is not justified under the merit system, the director shall issue an order directing that an appointment be made.” s. 230.25(2)(b), Wis. Stats

Since implementation of Act 150, BMRS has worked with agencies to transition from the civil service "exam" to more efficient competitive procedures. There are a wide variety of position types in state service, variation in the quality and size of applicant pools, and different assessment strategies available for use by human resources professionals and hiring managers. While traditional assessment strategies may still be a valuable tool in some instances, it has been established by BMRS that the resume screen is the preferred method of assessment.

### [Selection Process Overview](#)

The job analysis is the first step in the recruitment and selection process when a State agency has a vacancy ready to fill. Job analysis is essential to identify the minimum duties, knowledge, skills and abilities needed for the position to be successfully performed. This step establishes the foundation for the selection process, and promotes a merit-based selection process. The process involves the hiring manager, or identified job experts, reviewing the position description with human resources to identify job related criteria appropriate to assess applicants throughout the entire competitive selection process. After job analysis is complete, the type of assessment to be used is determined and then developed. Appendix B provides a detailed description of the various types of assessments.

State agencies are required to post their available classified positions on Wisc.Jobs for a minimum of seven calendar days (10 days prior to Act 150). Interested applicants apply to the positions by providing their personal information and completed application materials including a resume and any additionally required assessment materials. Application materials, resumes, and assessments are evaluated by Subject Matter Experts (SMEs) and applicants are determined to be eligible or not eligible. All applicants found to be minimally qualified for a position are included on an employment register and the agency creates a certification list. This group of applicants moves directly to interviews or other secondary screening prior to the interview.

Recruitment and assessment begins with the publication of the job announcement and ends with the creation of a list of individuals who may be considered for selection. Once this list is created, the selection process begins and concludes on the effective date of hire for the person selected.

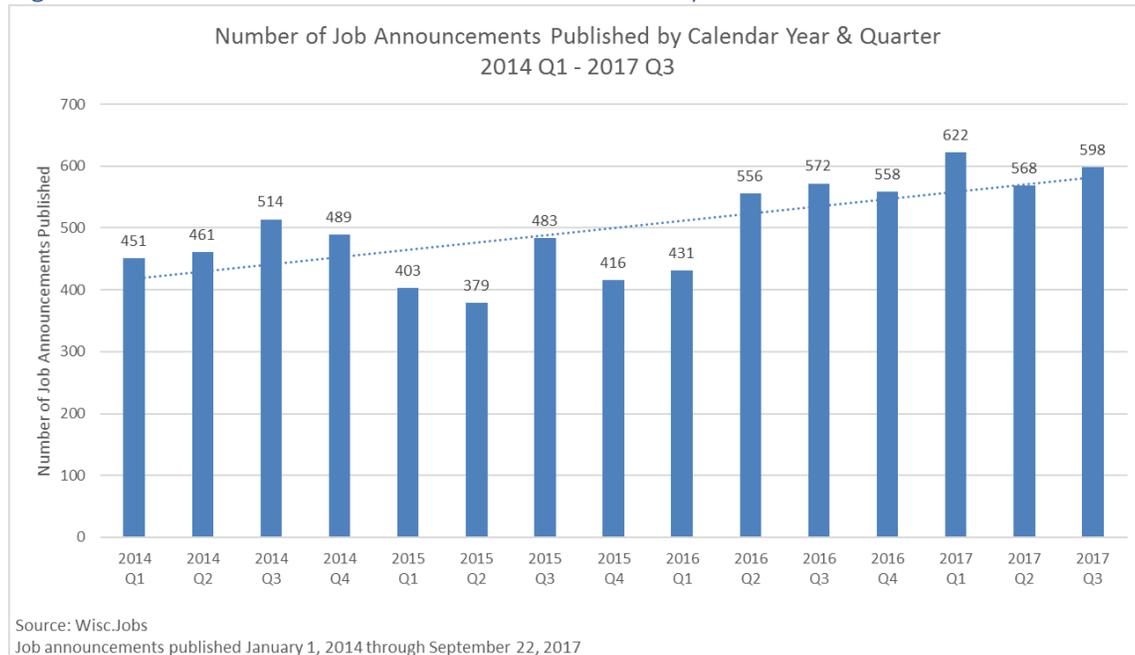
This report presents recruitment and selection trends, including volume of job announcements, applicant interest, assessment type utilization, and the time to fill positions, before and after the implementation of Act 150. This report is the first edition in a series of annual reports. The purpose of this report is to provide an overview of recruitment and selection data both pre- and post-Act 150, with a focus on the extent to which established goals of Act 150 have been met. The data extraction and analysis methodology for this report were highly sophisticated due to the complexity in design of Wisc.Jobs. The Division of Personnel Management (DPM) made every effort to provide analysis of the recruitment and hiring data in a manner representative of the Wisconsin permanent classified workforce and consistent with the standard competitive recruitment and selection procedures for permanent classified employees. As such, DPM reserves the right to modify the methodology used in this report in the future as new, better methods of extraction and analysis become available. Appendix B provides a detailed description of the methodology used to analyze the data extracted.

## Volume of Job Announcements

Job announcement data were extracted from Wisc.Jobs on September 25, 2017 to assess how the number of job announcements published (limited to those for which applications were received) has changed since Act 150. See Appendix B for the data methodology and exclusions from analysis. See Appendix C for the raw data used in this analysis.

Figure 1 shows the number of job announcements published January 1, 2014 through September 22, 2017, from which applications were received. Job announcements that did not receive applications were not included in this analysis. Overall, there has been an upward trend in the number of job announcements published from Quarter 1, 2014 to Quarter 3, 2017. The average number of job announcements published per quarter pre-Act 150 was over 458. The average number of job announcements published per quarter post-Act 150 was over 583, an increase of about 125 job announcements per quarter; an increase of about 27%.

Figure 1. Number of Job Announcements Published by Calendar Year & Quarter



## Applicant Interest

Application data were extracted from Wisc.Jobs on September 25, 2017 to assess how the number of applications has changed since Act 150. The changes made to the civil service hiring process in Act 150 were intended to make it easier for applicants to apply for positions with the intention of increasing the number of people applying for state jobs. See Appendix B for the data methodology and exclusions from analysis. See Appendix C for the raw data used in this analysis.

Figure 2 shows the number of applications received in Wisc.Jobs for job announcements published January 1, 2014 through September 22, 2017 by calendar year and quarter. Overall, there has been an upward trend in the number of applications received from Quarter 1, 2014 to Quarter 3, 2017.

Figure 2. Applicant Interest by Calendar Year & Quarter

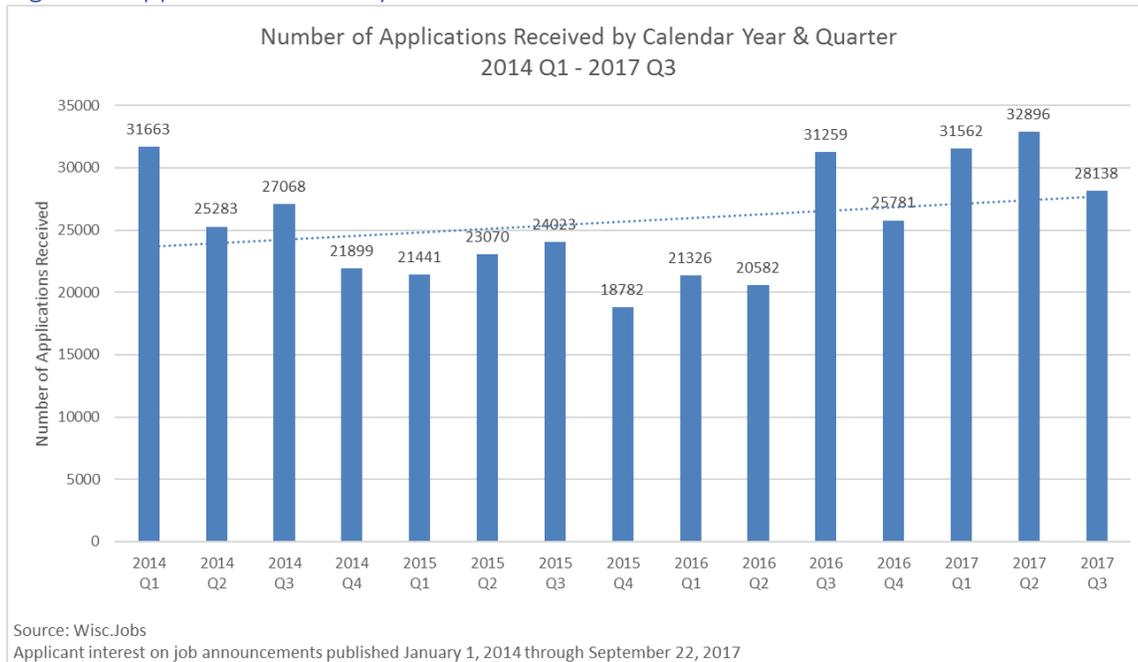
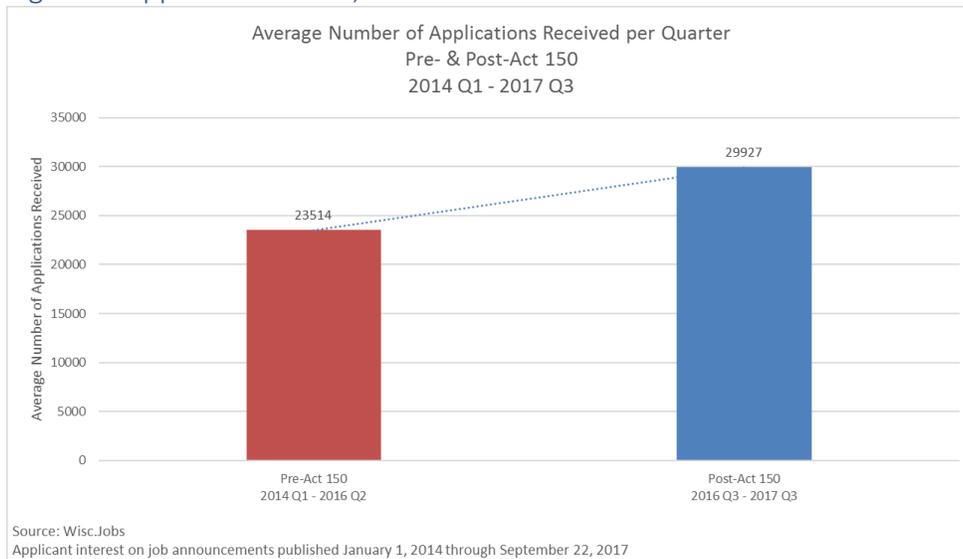


Figure 3 shows the average number of applications received per quarter, pre- and post-Act 150, for job announcements published January 1, 2014 through September 22, 2017. The pre-Act 150 applications data span over ten quarters (Quarter 1, 2014 – Quarter 2, 2016), while the post-Act 150 applications data span over five quarters (Quarter 3, 2016 – Quarter 3, 2017). (Note: Quarter 3, 2017 does not include the entire month of September.) The average number of applications received per quarter was significantly higher post-Act 150 than pre-Act 150 (see Appendix D for results of statistical significance testing). On average, there was 6,413 more applications received per quarter post-Act 150 than pre-Act 150. That was an increase of more than 27%, despite a downward trend in unemployment within the State of Wisconsin over that timespan (see Table 6).

Figure 3. Applicant Interest, Pre- & Post-Act 150



## Assessment Type Utilization

Assessment type utilization data were extracted from Wisc.Jobs on September 25, 2017 to assess how the pre-certification assessment types utilized has changed since Act 150. The resume screen has been established as the preferred method of pre-certification assessment following implementation of Act 150, and applications for employment now require the submission of a resume. See Appendix B for the data methodology and exclusions from analysis. See Appendix C for the raw data used in this analysis.

Figure 4 shows the number of assessments by type for each quarter that job announcements were published between January 1, 2014 and September 22, 2017. Training & experience assessments were the primary pre-certification assessment type utilized prior to implementation of Act 150. However, resume screens became the primary pre-certification assessment type utilized following implementation of Act 150. The other assessment types have been utilized to a much lesser extent.

Figure 4. Assessment Type Utilization by Calendar Year & Quarter

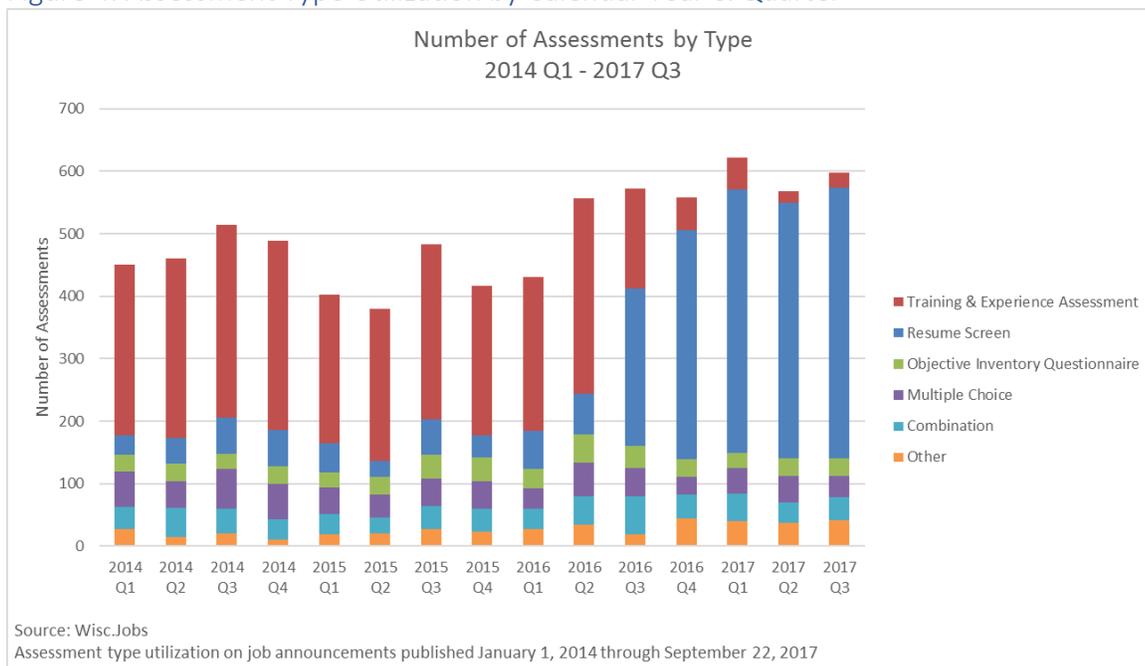


Figure 5 shows the various types of assessments and the extent to which they were utilized on job announcements published **pre-Act 150** (January 1, 2014 through June 30, 2016). Training & experience assessments were the most widely used assessment type, accounting for 60% of all assessments. Resume screens only accounted for 10% of all assessments and were not a recommended tool. In comparison, Figure 6 shows the various types of assessments and the extent to which they were utilized on job announcements published **post-Act 150** (July 1, 2016 through September 22, 2017). Resume screens became the most widely used assessment type, accounting for 64% of all assessments. Training & experience assessments only accounted for 11% of all assessments. This illustrates the shift to resume screens as the preferred method of assessment.

Figure 5. Assessment Type Utilization: Pre-Act 150 Figure 6. Assessment Type Utilization: Post-Act 150

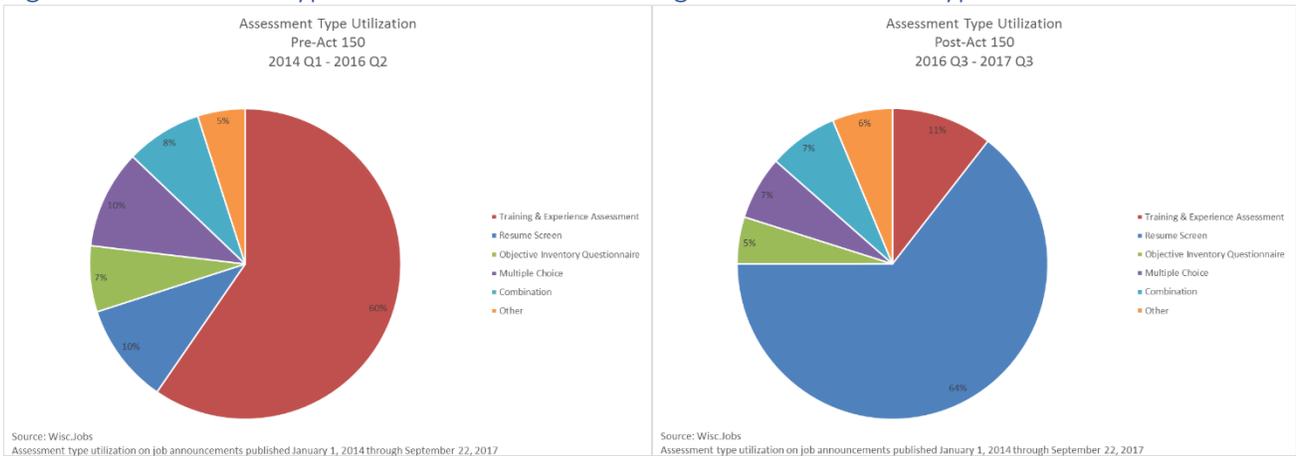
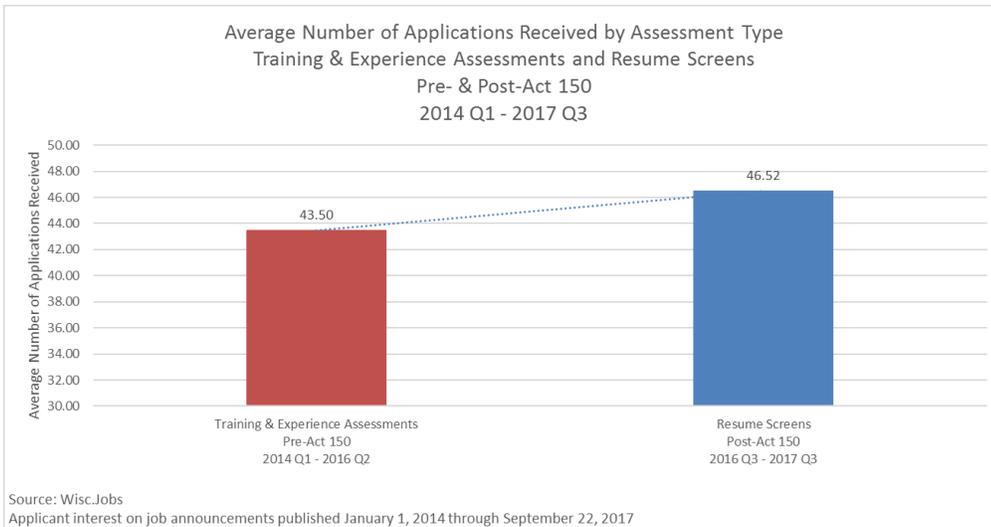


Figure 7 shows the average number of applications received per quarter, for Training & Experience Assessments (pre-Act 150) and Resume Screens (post-Act 150). The average number of applications received for job announcements where Training & Experience Assessments were the pre-certification assessment type was 43.50 (between 2014 Q1 – 2016 Q2). The average number of applications received for job announcements where Resume Screens were the pre-certification assessment type was 46.52 (between 2016 Q3 – 2017 Q3). Resume screens have been associated with a higher number of applications received as compared to training & experience assessments. On average, about three more applications have been received when resume screens were the primary assessment type compared to when training & experience assessments were the primary assessment type, an increase of nearly 7%.

Figure 7. Applicant Interest by Assessment Type, Training & Experience Assessments and Resume Screens



## Time to Fill Positions

The time to fill positions data were extracted from Wisc.Jobs on September 25, 2017 to assess any change in the average number of days from job announcement publication to certification, from certification to hire, and from job announcement publication to hire since Act 150. The timeline to fill positions was reduced with the intent of making the hiring process more efficient, following implementation of Act 150. Act 150 reduced the timeline to recruit and assess applicants (job announcement publication to certification) from 45 days to 30 days; reduced the timeline to make a selection from the list of eligible applicants (certification to hire) from 60 days to 30 days; thereby reducing the total timeline to fill a position from recruitment to selection of an applicant (job announcement publication to hire) from 105 days to 60 days. See Appendix B for the data methodology and exclusions from analysis. See Appendix C for the raw data used in this analysis.

Figure 8 shows average number of days from job announcement publication to certification, from certification to hire, and from job announcement publication to hire per quarter, for job announcements published between January 1, 2014 and September 22, 2017. There has been a downward trend in the average number of days from job announcement publication to certification, from certification to hire, and from job announcement publication to hire per quarter over this timespan. Overall, there has been a downward trend in average time to fill positions from Quarter 1, 2014 to Quarter 3, 2017. (Note: Quarter 3 represents less than a full quarter as some recruitments initiated in the quarter had not completed the full hiring cycle.)

Figure 8. Time to Fill Positions by Calendar Year & Quarter

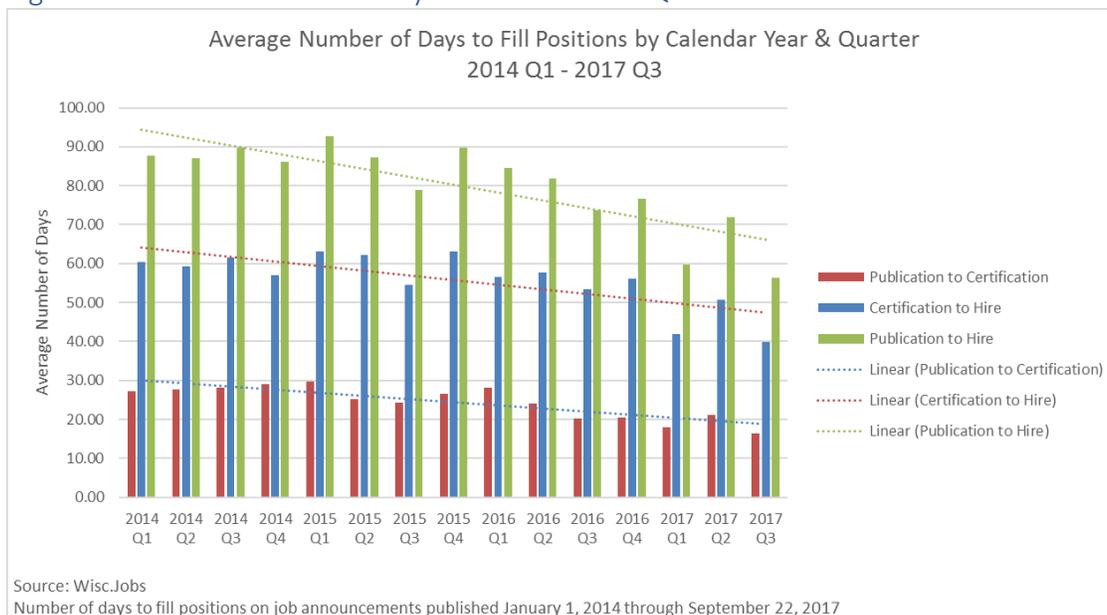


Figure 9 shows the per quarter average number of days to fill positions pre- and post-Act 150. This includes the per quarter average number of days from job announcement publication to certification, from certification to hire, and from job announcement publication to hire. The average number of days to fill positions per quarter (average number of days from job announcement publication to certification, from certification to hire, and from job announcement publication to hire) was significantly lower post-Act 150 as compared with pre-Act 150 (see Appendix D for results of statistical significance testing). The decrease in publication to certification time was 7.76 days (nearly 29%). The decrease in certification to hire time was 11.14 days (nearly 19%). The decrease in publication to hire time was 18.90 days (nearly 22%).

Figure 9. Time to Fill Positions, Pre- and Post-Act 150

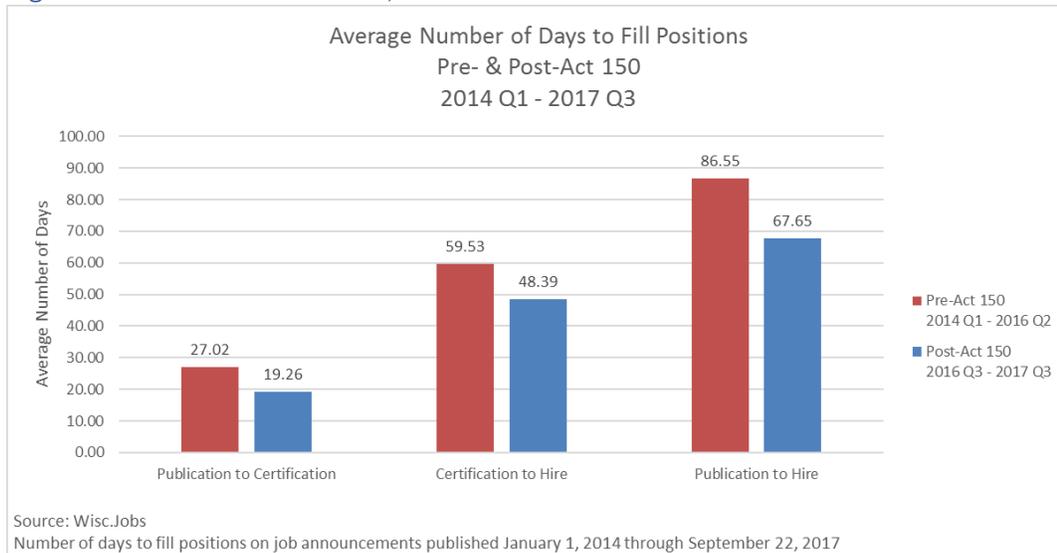


Figure 10 shows the per quarter average number of days from job announcement publication to certification, from certification to hire, and from job announcement publication to hire for Training & Experience Assessments (pre-Act 150) and Resume Screens (post-Act 150). The average number of days to fill positions, including both pre-certification and post-certification, was significantly lower for job announcement with resume screens as the pre-certification assessment type as compared to job announcements with Training & Experience Assessments as the pre-certification assessment type (see Appendix D for results of statistical significance testing). The decrease in publication to certification time was 8.56 days (nearly 31%). The decrease in certification to hire time was 11.24 days (over 19%). The decrease in publication to hire time was 19.79 days (nearly 23%).

Figure 10. Time to Fill Positions by Assessment Type, Training & Experience Assessments and Resume Screens

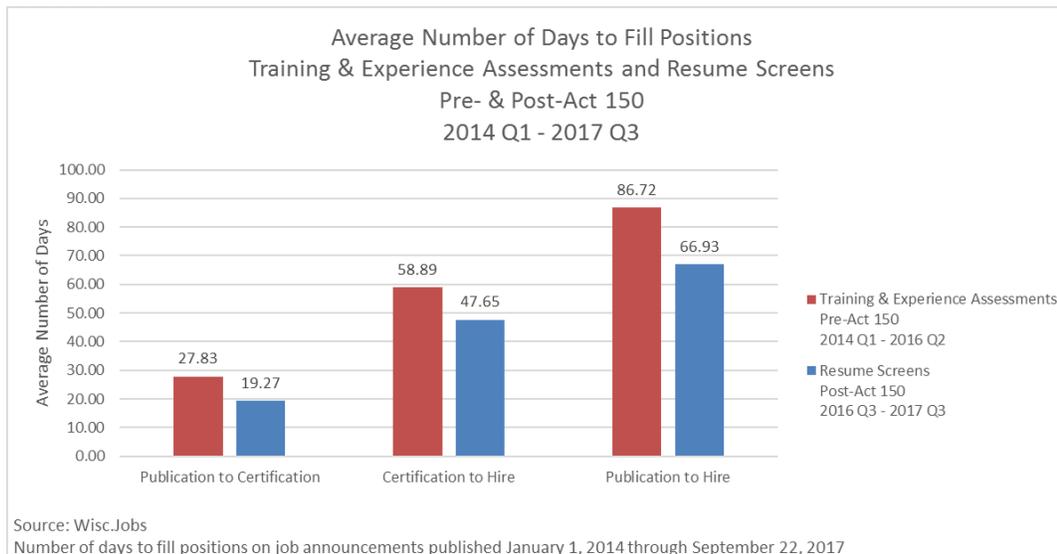
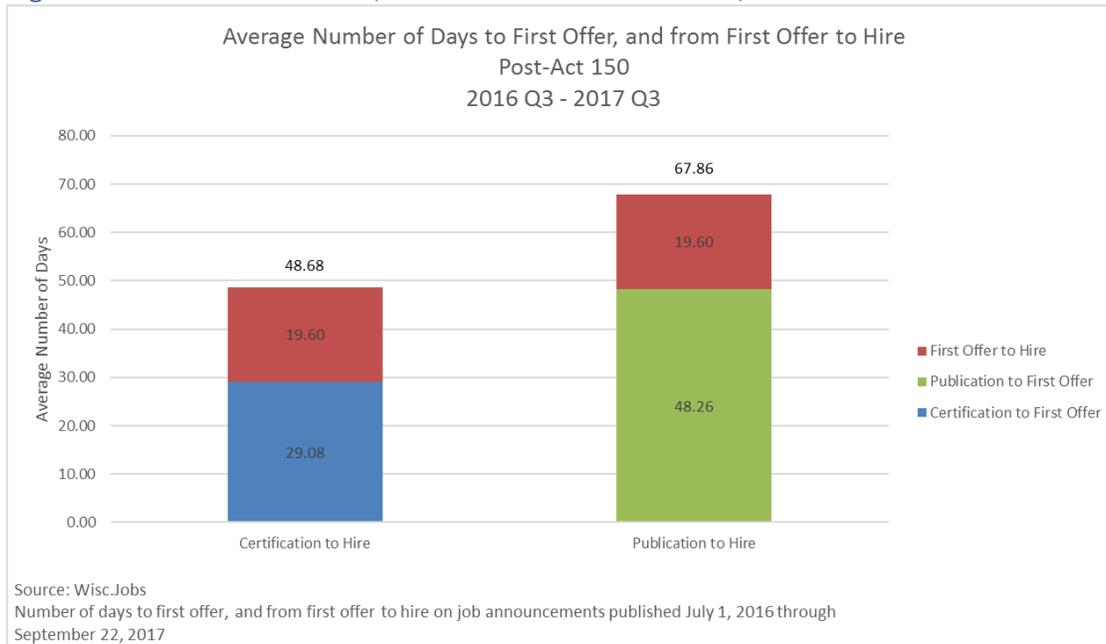


Figure 11 shows the per quarter average number of days from certification to first offer, from job announcement publication to first offer, and from first offer to hire, post-Act 150. The date of first offer was not captured consistently in Wisc.Jobs until Act 150 was implemented (2016 quarter 3). Note, eleven job announcements did not have date of first

offer available in Wisc.Jobs (resulting in minor differences between Figure 9 and Figure 11 in the average number of days from certification to hire, and average number of days from publication to hire). The average number of days from job announcement publication to first offer post-Act 150 was under 60 days (48.26 days). On average, there was nearly 20 days (19.60 days) from first offer to hire. The number of days from first offer to hire represents nearly 29% of the average total timeline from job announcement publication to hire.

Figure 11. Time to First Offer, and from First Offer to Hire, Post-Act 150



## Summary, Limitations & Next Steps

The complexity of Wisc.Jobs provides agency HR users with purposeful flexibilities in administering the hiring process, but there are limitations with its use for extracting and analyzing recruitment and selection data, both pre- and post-Act 150. The data extracted has not been analyzed in this manner before, and the methodology utilized in this report was novel. New software and systems in the future may alleviate some of the challenges of data extraction for reporting.

While the report has identified many improvements post Act 150, additional work and advancement in recruiting/hiring technology is needed. The timeline from publication to first offer is well within the expected 60 days but additional monitoring is needed to ensure this trend continues. The timeline from publication to hire is 7.86 days greater than the allotted 60 days but includes the time from an applicant’s acceptance of the position until their start date; normally two weeks. This data readily identifies the need for continued improvement in the steps to shorten the timeline from certification to hire; the portion of the process which involves a lot of supervisory time for interviews and HR time for applicant verification. Technology and process improvements will enable improved timelines for interviewing, reference checking and background checks for the majority of positions.

Finally, as indicated previously, this report is the first edition in a series of annual reports. This report focused on quantitative analyses pre- and post-Act 150: volume of job announcements, applicant interest, assessment type utilization, and time to fill positions. Quality of hires was not assessed in this report. Future reports may complement the quantitative analyses and provide a more comprehensive approach to evaluate relationships between recruitment and selection methodologies and outcomes related to quality of hires, such as with promotion, retention, and employee performance.

## Appendix A – Definitions

**Achievement history questionnaire (AHQ):** Examination method that requires applicants to describe, in narrative fashion, their main accomplishments, achievements, training or education, and experience in several critical job-related areas. Raters evaluate responses based on structured rating criteria (benchmarks). Questions are administered in an uncontrolled environment.

**Area of competition (AOC):** Defines the group of people eligible to apply for a position. There are two primary areas of competition to consider: open and promotional competition. Open competition is open to all qualified applicants. Promotional competition is open to qualified applicants in the classified civil service who occupy a regular, seasonal or sessional position in which permanent status may be obtained; who are on an approved leave of absence; who are former employees with restoration rights resulting from layoff; or who have previously gained permanent status and are temporarily serving in a project position under a project position. Promotional competition may be open to all eligible employees within the classified civil service (servicewide), or, if certain conditions are met, to eligible employees within the UW System (systemwide), an agency (agencywide), or recognized employing unit (unitwide).

**Centered exam:** See civil service exam.

**Certification:** Process used to determine the number and names of candidates from a register that will be considered for a specific position vacancy. It involves the creation of a list of candidates from the register who will be moved on to the next step in the process (e.g. phone interview, face to face interview, another post-cert assessment, etc.).

**Civil service exam:** Referring to the pre-certification competitive process used prior to implementation of Act 150.

**Civil service transfer:** Agencies may announce a vacancy for permissive transfer applicants on an agency or employing unit basis outside of Wisc.Jobs. If internal applicants will be considered prior to posting the position for open recruitment, agencies are required to have an internal transfer policy and an announcement of an internal transfer opportunity is required.

**Classified employee:** An employee included in the classified service comprised of all positions not included in the unclassified service.

**Classified service:** The classified service comprises all positions not included in the unclassified service (s.230.08, Wis. Stats.)

**Competitive examination:** See civil service exam. Competitive examinations were replaced with what are referred to as “competitive procedures” following implementation of Act 150.

**Continuous recruitment:** Positions with multiple vacancies and continuous hiring. Job announcements have no deadline or “apply by” date.

**Effective date:** Date in which a hire is made effective in Wisc.Jobs.

**Employee referral service:** See Wisconsin Employee Referral Service.

**Job analysis:** A systematic process used to identify the tasks, duties, responsibilities, and working conditions associated with a job and the knowledge, skills, abilities, and other characteristics required to perform that job.

**Limited term employment (LTE):** Employment in which the nature and conditions do not permit attainment of permanent status in class for which the use of normal procedure for recruitment and examination are not practicable.

**Multiple-choice examination:** Written multiple-choice examinations are used to assess knowledge, basic skills or proficiencies, particularly for entry-level jobs that attract large numbers of applicants. These exams can be administered in an in-person, monitored environment or online with the appropriate applicant verification procedures. Creating this type of exam is not delegated to agencies.

**Objective inventory questionnaire (OIQ):** OIQs, also called skills inventories, are used to evaluate applicants on the basis of their training and experience with specific job tasks, tools, technologies, or equipment. The typical objective inventory presents the applicants with a checklist of specific job statements (about skills, tasks, tools, equipment, etc.) and asks the applicant to use a scale to indicate their level of education or training (EOT) and practical work experience (PWE) with the specific statements. An OIQ should be used only to measure job content that is specific and clearly understood. For particularly difficult recruitments such as highly technical positions, the OIQ is a fast and easy process for the applicants and encourages a high response rate. However, OIQs tend to have very low validity especially when used to measure non-technical skills. Therefore, they should not be used for professional level positions. The certification rule for OIQs is determined after the score analysis and prior to the creation of the register. A certification rule of at least one-third of the resulting register is highly recommended in order to offset the low validity of this assessment type.

**Permanent classified employee:** a person who is an employee as a result of a permanent appointment, whether or not the employee has attained permanent status. Permanent classified employees must compete within the merit recruitment and selection system to attain their first state position.

**Project employment:** Employment as a result of a project appointment to a project position.

**Project position:** A position that is normally funded for 6 or more consecutive months and which requires employment for 600 hours or more per 26 consecutive biweekly pay periods, either for a temporary workload increase or for a planned undertaking which is not a regular function of the employing agency and which has an established probable date of termination. No project position may exist for more than 4 years.

**Random rank:** Certain labor and service job classifications with few measurable skills and abilities may have been approved to utilize registers that are generated by a random ranking process and no assessment tool was used to determine applicant eligibility. This assessment type was utilized pre-certification. Applicants who completed the application process were added to the employment register and were randomly ranked when certified.

**Register:** List of applicants who have completed the application process and have been deemed eligible. Applicants may be assigned passing civil service scores and be ranked on the register based on those scores if the assessment used a numerical score to determine eligibility. If the assessment(s) applied pass/fail or eligible/not eligible criteria to applicants and therefore no numerical score, all applicants deemed passing or eligible will be placed on the register.

**Request to staff position:** A request to fill or staff a position must be submitted by the hiring manager before a certification request can be made to BMRS. It may include the following approvals: budget approval, classification approval, Hiring Above the Minimum (HAM), Temporary Appointment Maximum (TAM), Raised Hiring Rate (RHR) Approval, and appointing authority approval. Note job announcement publication date was used in this report because there is currently no system to track the request to staff positions date.

**Resume screen:** An assessment tool utilized to determine if applicants meet the required (and/or preferred) elements of the position as determined by the job analysis. Scales for evaluation include pass/fail, 3 and 9- points to create scores in order to select a portion of the passing candidates may be used.

**Servicewide transfer:** An area of recruitment or certification including only current permanent classified employees in Wisconsin state civil service (including seasonal, sessional employees and employees on probation) who are not serving a limited term or project appointment basis. Servicewide recruitments and certification were eliminated with the implementation of Act 150.

**Targeted recruitment:** A type of recruitment that carries over applicant exam scores from an established register. This is used to create a vacancy-specific register and certification to fill a position as opposed to certifying directly from the centered register.

**Training and experience assessment (T&E):** This type of assessment poses questions to applicants and requires a narrative reply to indicate specific accomplishments in work experience, education and training relevant to key job criteria of the position. These assessments require applicants to describe observable behaviors (or tasks that they have performed which are related to the key job criteria). Job experts develop benchmark screening criteria to evaluate qualifications that are acceptable, more than acceptable, and less than acceptable relative to desired KSAs. This assessment may be administered online or offline, with other job experts serving as rating panel members. Questions and benchmarks may be more detailed for higher-level managerial and supervisory jobs, or advanced-level technicians (e.g., scientists, engineers, etc.). Items may be combined with other application requirements such as submission of proof of a mandatory licensure or certification.

**Unclassified employee:** In general, unclassified employees are hired by processes other than the merit recruitment and selection system required to hire into classified positions. Examples of unclassified positions include: all state officials elected by the people, officials and employees appointed by the governor, most state agency division administrator positions, and justices of the Wisconsin Supreme Court.

**Unclassified state opportunities:** See unclassified employee.

**Wisc.Jobs:** The state's online human resource recruiting system, which is the official vacancy announcement medium for job opportunities in Wisconsin state civil service.

## Appendix B – Methodology

### Applicant Interest, Job Announcement Volume, & Assessment Type Utilization Data

Applicant interest, job announcement volume, and assessment type utilization data were extracted from Wisc.Jobs on March 30, 2017 for job announcements published between January 1, 2014 and March 30, 2017, on April 5 for job announcement published between March 2, 2017 and March 31, 2017, and again on September 26, 2017 for job announcements published between March 2, 2017 and September 22, 2017. The data were then merged for analysis. The data are based on a calendar year and presented by quarter in which the first quarter begins in January. The effective calendar year and quarter date is based upon (reflective of) the job announcement publish date. Note 2017 quarter 3 does not include the full month of September.

### Applicant Interest

The applicant interest data included all applications that had been received for job announcements published between January 1, 2014 and September 22, 2017. The final applicant interest data set included 384773 unique records in the analysis following exclusions. Records for applicants who applied to multiple job announcements, and records where the application was duplicated for multiple job classes on a single job announcement were included.

Applications for purposes of this report are defined by an applicant who:

- Clicked “Apply Now” on a job announcement published on Wisc.Jobs and submitted their personal information.
- OR
- Applied for a job announcement published on Wisc.Jobs and the agency HR staff entered the application into the system for the applicant.

These applicants could have fallen into one of the following categories:

- Applied only. Applicant did not submit any required application materials to be evaluated and were not considered for the job they applied to.
- Applied and submitted incomplete application materials therefore we not evaluated or considered for the job they applied to.
- Applied and submitted complete application materials. The materials were evaluated, and the applicant was found eligible therefore they considered for the job they applied to. The applicant may or may not have been hired into a position.
- Applied and submitted complete application materials. The materials were evaluated, and the applicant was found not eligible therefore they were not considered for the job they applied to.
- Applied and submitted complete application materials but withdrew their application at some point in the process.

An independent samples t-test was conducted to assess whether there was a statistically significant mean difference in the average number of applications received per quarter, pre- and post-Act 150.

### Job Announcement Volume

The job announcement volume data initially included all applications that had been received for job announcements published between January 1, 2014 and September 22, 2017. Then, duplicate records based upon the job announcement ID and job announcement publish date (calendar year and quarter) were removed. This allowed for one record for each unique job announcement posted at one point in time, from which applications were received. Sometimes job announcements are reposted under the same job announcement ID at different times – those are considered separate records (effectively separate job announcements) for the purposes of this analysis. The final job announcement volume data set included 7501 unique records in the analysis following exclusions, 112 of which were duplicated job announcement IDs. The job announcement data set was effectively a subset of the applicant interest data set.

### Assessment Type Utilization

The assessment type utilization data set was the same data set as the job announcement data set, effectively a subset of the applicant interest data set.

The following assessment types were utilized:

- Achievement History Questionnaire
- Application Materials Review
- Combination
- Medical
- Multiple Choice
- Not Selected (No Type Selected)
- Objective Inventory Questionnaire
- Oral Board
- Random Rank
- Resume Screen
- Resume Screen – Complex
- Training & Experience Assessment

Resume screens and resume screens – complex were combined for analysis. Achievement history questionnaires, application materials review, and training & experience assessments were combined for analysis. An “Other” category consisting of medical, assessment type not selected, oral boards, and random rank was created.

The focus of this report is on the standard competitive recruitment and selection procedures for permanent classified employees. As such, the following records were excluded from analysis of applicant interest, job announcement volume, and assessment type utilization data:

- Records where the **applicant ID** was coded as NULL
- Records where the **job class code** was coded as unknown, Affirmative Action Internship Program, or WI State Government Internships
- Records where the **org code** was coded as part of the UW-System
- Records where the **area of competition** was coded as agency competitive employee referral service, servicewide transfer, or UW-System competitive promotional
- Records where the **job announcement type** was coded as civil service transfer, limited term employment, local & tribal government, project – project employment, or unclassified state opportunities
- Records where the **targeted recruitment flag** was coded as TRUE

In addition, records where the **application received date** was before the **job announcement publish date** due to data entry errors in Wisc.Jobs were excluded from analysis.

An independent samples t-test was conducted to assess whether there was a statistically significant mean difference in the average number of applications received by assessment type (comparing training and experience assessments and resume screens), pre- and post-Act 150.

## Time to Fill Positions

The time to fill positions data was extracted from Wisc.Jobs on April 7, 2017 for job announcements published between January 1, 2014 and March 31, 2017, and again on September 25, 2017 for job announcements published between January 1, 2014 and September 22, 2017. The data were then merged, and duplicates were removed for analysis. The data was pulled twice to account for Wisc.Jobs overwrites due to reannouncements, and to incorporate 2017 quarter 2 and 3 data into the analysis. The data included job announcements published between January 1, 2014 and September 22, 2017. The data are based on a calendar year and presented by quarter in which the first quarter begins in January. The effective calendar year and quarter date is based upon (reflective of) the job announcement publish date. Note 2017 quarter 3 does not include the full month of September.

The focus of the time to fill positions analysis was on standard, one-time recruitments (as opposed to reannouncements, multi-certs, etc.). As such, records where the job announcement ID for the job announcement attached to the cert was duplicated and not a unique identifier were excluded from this analysis. The final time to fill positions data set included 3042 unique records in the analysis following exclusions.

There is currently no system to track the request to staff position (request to fill) date. As such, the job announcement publication date was used as a proxy for request to fill date.

Date of first offer was not tracked in Wisc.Jobs until 2016 quarter 3. As such, the data set for the analysis of the number of days to first offer, and from first offer to hire consisted of a subset of the number of days to fill positions data set. The data set for the analysis of the number of days to first offer, and from first offer to hire included 873 unique records in the analysis following exclusions. Eleven records that were included in the time to fill positions data set did not have date of first offer data available. This resulted in minor differences between the two data sets in average number of days from certification to hire and average number of days from publication to hire (reflected in Figures 9 and 11).

Again, the focus of this report is on the standard competitive recruitment and selection procedures for permanent classified employees. As such, the following records were excluded from analysis of time to fill positions data:

- Records where the **inactive reason** was coded as Cert created to fill project position, Different class will be used to fill this position, Due to Budget Reasons, Entered in Error, Former employee returned to position, Inaccurate Application Data Loaded, Inaccurate Score Data Loaded, Invalid exam per s.230.16(4), or Reorganization
- Records where the **area of competition** was coded as agency competitive employee referral service, servicewide transfer, and UW-System competitive promotional
- Records where the **type of hire** was coded as NONE or project appointment
- Records where the **effective date** was coded as NULL (no hire), 1899-12-30 00:00:00.000, less than 1/1/2014, or greater than 10/31/2017 (data entry errors)
- Records where the **no hire reason** was coded as all positions filled
- Records where the **cert create date** was coded as less than 1/1/2014
- Records where the **org on the job announcement attached to the cert** was coded as part of the UW-System
- Records where the **announcement type on the job announcement attached to the cert** was coded as civil service transfer, limited term employment, local & tribal government, project – project employment, or unclassified state opportunities
- Records where the **area of competition on the job announcement attached to the cert** was coded as employee referral service, servicewide transfer, and UW-System competitive promotional
- Records where the **class on the job announcement attached to the cert** was coded as unknown, Affirmative Action Internship Program, or WI State Government Internships
- Records where the **continuous recruitment flag on the job announcement attached to the cert** was coded as TRUE
- Records where the **random rank flag on the job announcement attached to the cert** was coded as TRUE
- Records where the **targeted recruitment flag on the job announcement attached to the cert** was coded as TRUE
- Records where the **centered exam on the job announcement attached to the cert** was coded as TRUE
- Records where the **class code & extender on the exam that's attached to the job announcement attached to the cert** was coded as Affirmative Action Internship Program or WI State Government Internships
- Records where the **exam type on the exam that's attached to the job announcement attached to the cert** was coded as NONE
- Records where the **exam class on the exam that's attached to the job announcement attached to the cert** was coded as unknown, Affirmative Action Internship Program, or WI State Government Internships

Records where the number of days from the **publish date** to the **cert create date** was greater than 200 days, or where the number of days from the **cert create date** to the **effective date** was greater than 200 days were considered data anomalies and excluded from analysis.

In addition, records where the **application received date** was before the **job announcement publish date**, or where the **effective date** was before the **cert create date** due to data entry errors in Wisc.Jobs were excluded from analysis.

Finally, for the analysis of the number of days to first offer, and from first offer to hire, records where the number of days from **cert create date** to **date of first offer** was greater than 200 days (considered data anomalies), the **date of first offer** was before the **job announcement publish date** (data entry errors), the **date of first offer** was before the **cert create date** (data entry errors), or the **effective date** was before the **date of first offer** (data entry errors) were excluded from analysis.

Independent samples t-tests were conducted to assess whether there were statistically significant mean differences in the average number of days to fill positions per quarter (average number of days from job announcement publication to certification, from certification to hire, and from job announcement publication to hire), pre- and post-Act 150, and the average number of days to fill positions per quarter (average number of days from job announcement publication to certification, from certification to hire, and from job announcement publication to hire) for training & experience assessments (pre-Act 150) and resume screens (post-Act 150).

## Appendix C – Raw Data

Table 1. Number of Job Announcements Published by Calendar Year & Quarter

<b>Calendar Year &amp; Quarter</b>	<b>Number of Job Announcements Published</b>
2014 Q1	451
2014 Q2	461
2014 Q3	514
2014 Q4	489
2015 Q1	403
2015 Q2	379
2015 Q3	483
2015 Q4	416
2016 Q1	431
2016 Q2	556
2016 Q3	572
2016 Q4	558
2017 Q1	622
2017 Q2	568
2017 Q3	598

Table 2. Applicant Interest by Calendar Year & Quarter

<b>Calendar Year &amp; Quarter</b>	<b>Number of Applications Received</b>
2014 Q1	31663
2014 Q2	25283
2014 Q3	27068
2014 Q4	21899
2015 Q1	21441
2015 Q2	23070
2015 Q3	24023
2015 Q4	18782
2016 Q1	21326
2016 Q2	20582
2016 Q3	31259
2016 Q4	25781
2017 Q1	31562
2017 Q2	32896
2017 Q3	28138

Table 3. Assessment Type Utilization by Calendar Year & Quarter

Calendar Year & Quarter	Training & Experience Assessment	Resume Screen	Objective Inventory Questionnaire	Multiple Choice	Combination	Other	Total
2014 Q1	274	31	27	56	36	27	451
2014 Q2	288	41	28	43	46	15	461
2014 Q3	308	58	25	63	39	21	514
2014 Q4	303	58	28	57	32	11	489
2015 Q1	239	46	24	42	33	19	403
2015 Q2	242	26	29	36	25	21	379
2015 Q3	280	57	38	44	37	27	483
2015 Q4	239	35	38	44	37	23	416
2016 Q1	246	61	32	32	32	28	431
2016 Q2	312	65	46	53	46	34	556
2016 Q3	160	251	36	45	61	19	572
2016 Q4	52	367	28	29	37	45	558
2017 Q1	51	422	24	41	44	40	622
2017 Q2	19	409	27	43	33	37	568
2017 Q3	25	432	28	35	36	42	598

Table 4. Number of Applications Received by Assessment Type, Training & Experience Assessments and Resume Screens

Calendar Year & Quarter	Primary Assessment Type	Number of Applications Received on Job Announcements with Primary Assessment Type
2014 Q1	Training & Experience Assessment	14521
2014 Q2	Training & Experience Assessment	13074
2014 Q3	Training & Experience Assessment	14859
2014 Q4	Training & Experience Assessment	13389
2015 Q1	Training & Experience Assessment	9996
2015 Q2	Training & Experience Assessment	13193
2015 Q3	Training & Experience Assessment	11657
2015 Q4	Training & Experience Assessment	7657
2016 Q1	Training & Experience Assessment	9892
2016 Q2	Training & Experience Assessment	10594
2016 Q3	Resume Screen	13570
2016 Q4	Resume Screen	16329
2017 Q1	Resume Screen	18974
2017 Q2	Resume Screen	19859
2017 Q3	Resume Screen	17505

Table 5. Average Number of Days to Fill Positions by Year & Quarter

Calendar Year & Quarter	Average Number of Days		
	Publication to Certification	Certification to Hire	Publication to Hire
2014 Q1	27.33	60.35	87.68
2014 Q2	27.69	59.30	87.00
2014 Q3	28.18	61.63	89.81
2014 Q4	29.09	57.02	86.11
2015 Q1	29.67	63.08	92.75
2015 Q2	25.17	62.12	87.28
2015 Q3	24.32	54.49	78.81
2015 Q4	26.66	63.07	89.73
2016 Q1	28.04	56.56	84.60
2016 Q2	24.07	57.68	81.75
2016 Q3	20.26	53.44	73.70
2016 Q4	20.54	56.06	76.60
2017 Q1	17.90	41.82	59.72
2017 Q2	21.23	50.76	71.99
2017 Q3	16.36	39.87	56.23

Table 6. Average Number of Days to Fill Positions by Assessment Type, Training & Experience Assessments and Resume Screens

Calendar Year & Quarter	Primary Assessment Type	Average Number of Days		
		Publication to Certification	Certification to Hire	Publication to Hire
2014 Q1	Training & Experience Assessment	27.33	60.45	87.78
2014 Q2	Training & Experience Assessment	28.71	58.90	87.61
2014 Q3	Training & Experience Assessment	28.85	59.78	88.63
2014 Q4	Training & Experience Assessment	29.51	57.77	87.28
2015 Q1	Training & Experience Assessment	30.87	60.51	91.38
2015 Q2	Training & Experience Assessment	25.91	62.63	88.53
2015 Q3	Training & Experience Assessment	25.01	52.77	77.79
2015 Q4	Training & Experience Assessment	27.34	62.38	89.71
2016 Q1	Training & Experience Assessment	30.36	55.59	85.96
2016 Q2	Training & Experience Assessment	24.39	58.10	82.49
2016 Q3	Resume Screen	19.04	52.33	71.37
2016 Q4	Resume Screen	20.73	55.62	76.36
2017 Q1	Resume Screen	18.67	42.12	60.79
2017 Q2	Resume Screen	21.35	50.32	71.67
2017 Q3	Resume Screen	16.57	37.88	54.45

Table 7. Average Number of Days to First Offer, and from First Offer to Hire, Post-Act 150

Calendar Year & Quarter	Average Number of Days		
	Certification to First Offer	Publication to First Offer	First Offer to Hire
2016 Q3	32.11	52.18	21.25
2016 Q4	34.29	54.71	21.95
2017 Q1	24.31	42.13	18.37
2017 Q2	31.41	52.61	19.86
2017 Q3	23.30	39.66	16.57

Table 8. National and State Unemployment Rates by Year & Quarter

Calendar Year & Quarter	National Unemployment Rate	State of Wisconsin Unemployment Rate
2014 Q1	6.7	5.8
2014 Q2	6.2	5.5
2014 Q3	6.1	5.2
2014 Q4	5.7	4.9
2015 Q1	5.5	4.7
2015 Q2	5.4	4.6
2015 Q3	5.1	4.5
2015 Q4	5.0	4.4
2016 Q1	4.9	4.2
2016 Q2	4.9	4.1
2016 Q3	4.9	4.2
2016 Q4	4.7	4.1
2017 Q1	4.7	3.7
2017 Q2	4.4	3.1
2017 Q3	4.3	3.4

Data extracted from the United States Department of Labor, Bureau of Labor Statistics

## Appendix D – Results of Statistical Significance Testing

Outcome of interest Average number of...	Pre-Act 150		Post-Act 150		df	t	p	r
	M	SD	M	SD				
Applications received per quarter	23513.70	3731.31	29927.20	2900.53	13	-3.349	.005*	.68
Applications received per quarter, for Training & Experience Assessments (pre-Act 150) and Resume Screens (post-Act 150)	43.50	7.29	46.52	5.09	13	-.824	.425	.22
Days from job announcement publication to certification	27.02	1.94	19.26	2.05	13	7.188	.000*	.89
Days from certification to hire	59.53	3.00	48.39	7.17	4.714	3.331	.023*	.84
Days from job announcement publication to hire	86.55	4.06	67.65	9.07	4.819	4.445	.007*	.90
Days from job announcement publication to certification, for Training & Experience Assessments (pre-Act 150) and Resume Screens (post-Act 150)	27.83	2.22	19.27	1.88	13	7.370	.000*	.90
Days from certification to hire, for Training & Experience Assessments (pre-Act 150) and Resume Screens (post-Act 150)	58.89	3.02	47.65	7.39	4.682	3.264	.025*	.83
Days from job announcement publication to hire, for Training & Experience Assessments (pre-Act 150) and Resume Screens (post-Act 150)	86.72	3.92	66.93	9.00	4.773	4.695	.006*	.91

\* $p < .05$ , indicating statistically significant mean differences

## Appendix E – References

- Chapter 104 – Procedures for Staffing Permanent Positions, of the *Wisconsin Human Resources Handbook*
- Chapter 136 – Job Announcements, of the *Wisconsin Human Resources Handbook*
- Chapter 176 – Competitive Selection Procedures, of the *Wisconsin Human Resources Handbook*
- Chapter 212 – Certification Procedures, of the *Wisconsin Human Resources Handbook*
- Chapter 224 – Limited Term Employment (LTE), of the *Wisconsin Human Resources Handbook*
- Chapter 228 – Project Appointments, of the *Wisconsin Human Resources Handbook*
- Chapter 230, Wisconsin Statutes
- ER-MRS Wisconsin Administrative Code
- Glossary of Human Resource Terms as Used by the Department of Administration/Division of Personnel Management, found at [https://dpm.wi.gov/Documents/BMRS/DPM\\_Glossary\\_8\\_2017.pdf](https://dpm.wi.gov/Documents/BMRS/DPM_Glossary_8_2017.pdf)
- United States Department of Labor, Bureau of Labor Statistics